SHARP PROGRAMMING MANUAL

CODE: 00ZERA150PM-E

ELECTRONIC CASH REGISTER

ER-A170

MODEL ER-A150

CONTENTS

SHARP CORPORATION

1. MASTER RESET

The master reset method are as follows.

Master reset A: Clears all the memories and initializes each preset parameter.

Master reset B: Clears the memories partially.
(The preset parameters are retained.)
(Daily sales total, sales total for a specific period, GT, Z counter and consecutive number are cleared.)

Master reset should be performed by using the following procedure.
(This operation is possible both with and without the memory protection battery attached.)

1. Turn off the power (Power OFF). (See Note 1.)
2. Turn the mode switch to either the SRV or PGM position.
3. With the journal feed key and a numerical key (n) pressed down, turn on the power (Power ON). (See Note 2.)
   (The keys must be kept pressed until 0s are displayed on the displays).

The master reset operation varies depending on which key (n) is pressed.

When the "8" is pressed : The master reset A is activated and the machine is set as a SEEG model.

When the "5" is pressed : The master reset B is activated.

The master reset A can also be accomplished in the following manner. (See Note3.)

With the memory protection battery detached and no key kept pressed, turn on the power. At this time, the mode switch may stay in any position.
However, when done in the OFF mode, the master reset A is not activated immediately.
It is activated when the mode switch is shifted to any other position.
This procedure automatically selects the destination.
When the master reset A or B operation is done with the memory protection battery detached, the buzzer sounds intermittently three times.

Note, however, that when the power is turned on and the operation is started with the mode switch in the OFF position, the number of times the buzzer sounds may vary or the buzzer may not sound at all depending on the timing of the shifting of the mode switch to other positions than the OFF position.

2. PROGRAM RESET

[Program reset] (initial) (Only when the memory protection battery is attached.)

This operation is for initializing the program with the memory retained.

Procedure: Shift the mode switch to the SRV position and turn on the power, or with the mode switch set to the PGM position and the journal feed key pressed down, turn on the power.

Note 1) Power OFF: Means stopping the AC power supply to the machine.
(Specifically, unplugging the machine.)

Note 2) Power ON: Means supplying the AC power to the machine.
(Specifically, plugging in the machine.)

Note 3) In case power failure occurs when the machine has no battery attached to it, the master reset A operation is automatically performed after the power has been restored.
(This is because if power failure occurs with no battery attached to the machine, all the memories are lost and the machine does not work properly after power recovery;
this requires the master reset A operation.)

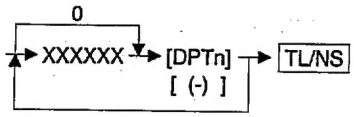
3. LIST OF PROGRAMMING JOBS

Job #	Programming item
1	Machine No.
2	Consecutive No.
3	Date
4	Time
5	Function select
6	Print format
11	Programming of minus DEPT/PLU number of dept Fractional treatment PLU & countries select 00 key selection & TAB (decimal) position
12	Drawer closing at the operation. Error beep/key catch sound VOID MODE Entry that causes the sub-total to be smaller than "0". Non add code Time format/date format
13	Printing when the ST key is pressed. Printing the exchange in PGM report & X/Z report. Programming of JOB#11-21 on PGM mode Stamp Direct non-tender finalization after tendering Z1, Z2 counter print on X/Z report Reset GT after Z1 report is printed. GT print on Z report Zero skipping hourly and dept. & transaction and PLU in X/Z report.
14	European rounding Object of rounding Lowest digit to be entered when entering an item amount. Difference memory Lowest to be entered when finalizing
15	Tax system Tax printing Rounding system
17	GT sign programming
18, 19	GT programming
20, 21	Reset report counter programming

NOTE: 1) For "JOB #11C COUNTRIES SELECT" AND "JOB #13A PROGRAMMING OF JOB #11-21 ON PGM MODE," when the setting is once changed, it cannot be changed until the master resetting is executed.

2) JOB #11-21 corresponds to the conventional SRV mode. JOB #11-21 setting enable/disable is determined in the PGM mode by the programming of JOB #13A PROGRAMMING OF JOB #11-21 ON PGM MODE.

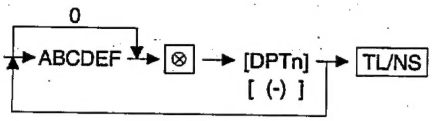
Price & modify programming for dept. & (–) key



XXXXXX : Unit price (Max 6 digits)

MRS = 0.00

Dept. & (–) function programming



A:

Sign	A
+	0
—	1

(Nothing is entered for (–))

B:

Taxable 3	B
No	0
Yes	1

(0 fixed for (–))

C:

Taxable 2	C
No	0
Yes	1

(0 fixed for (–))

D:

Taxable 1	D
No	0
Yes	1

(0 fixed for (–))

E:

SICS/Normal	E
Normal	0
SICS	1

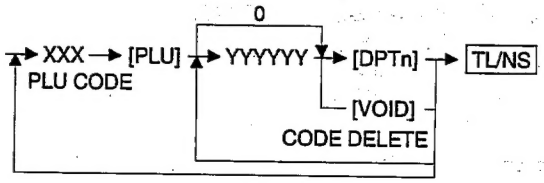
F:

Limitation	F
Limitation	0-7

Limitation : 0-7 (Halo) 0: Open price registration inhibit.

DEPT. MRS =
Normal, 7 digits
+sign, dept 1-5...Taxable 1
dept 6-8...No taxable
(–) MRS =
7 digits, -sign (minus sign only)

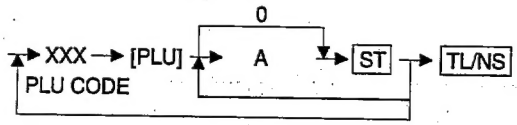
Programming of departments to be associated with PLUs & price reset



XXX : PLU code
YYYYYY : Unit price (6 digits)

MRS = 0.00

Programming of PLU type (ER-A170)



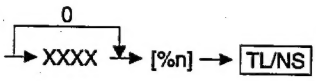
XXX : PLU code

A:

PLU/SUB	A
SUB	0
PLU	1

MRS = PLU

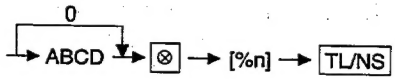
Programming rate for %key



XXXX : 0.01% - 99.99%

MRS = 0.00%

Programming for %key



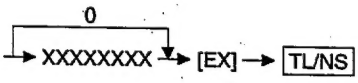
A:

Sign	A
+	0
—	1

B : 0 fixed
C : 0 fixed
D : 0 fixed

MRS = 1000

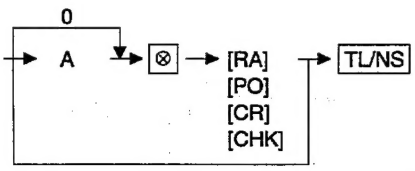
Programming for exchange key



XXXXXXXX : 0.01-9999.9999

MRS = 0.00

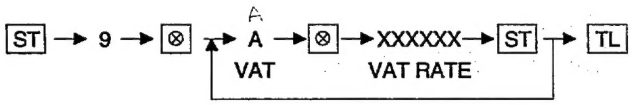
Programming for media keys & function keys.



A : Limitation 0-8

MRS = 8 digits.

% VAT programming

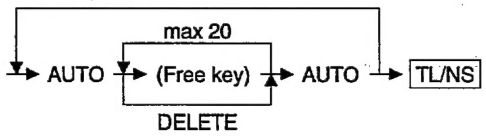


A

	A
VAT 1 programming	1
VAT 2 programming	2
VAT 3 programming	3

% VAT rate :0.0000% to 99.9999%

Auto key setting (ER-A170)



<Auto key function>

This machine has [AUTO] key that can be programmed for key-sequence data.

When [AUTO]-key is depressed, the machine works the same as the programmed key-sequence.

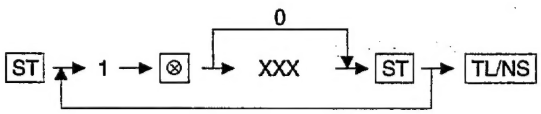
<Example>

→ AUTO → PLU1 → 100 → DEPT2 → AUTO → TL

(REG)

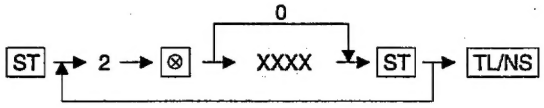
key entry	R/J		Display		comment	
AUTO	PLU0001	$1.10	001	1.10 same as	PLU1	entry
				1 same as	1	entry
				10 same as	0	entry
				100 same as	0	entry
	DEPT.02	$1.00	02	1.00 same as	DEPT2	entry

Machine number setting



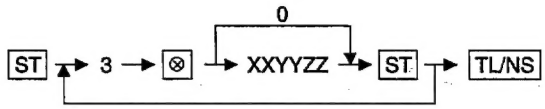
XXX : Machine number (max. 3 digits)
MRS = 000

Consecutive no setting



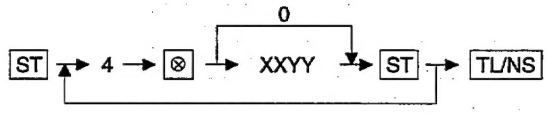
XXXX : Consecutive no. (max. 4 digits)
MRS = 0000

Date setting



XXYYZZ : Date (Year-month-day/day-month-year/month-day-year) the date format depends on job No.12.
MRS = 010100 (month-day-year)

Time setting

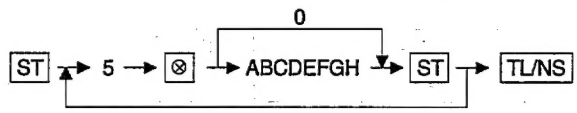


XX : Hour (00 to 11 or 00 to 23)
YY : Minute (00 to 59)

The hour format depends on job No. 12.

MRS = 0000

Function select setting

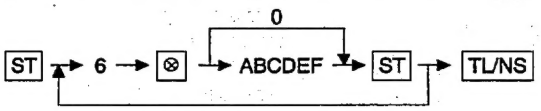


MRS = 00000000

Item	Function	Selection	Entry
A	PO	Disable	1
		Enable	0
B	RA	Disable	1
		Enable	0
C	Refund	Disable	1
		Enable	0
D	Indirect void	Disable	1
		Enable	0
E	Subtotal void	Disable	1
		Enable	0
H	Decimal digit entry	Disable	1
		Enable	0

Above parameter A-G are only valid for REG mode.
F : 0 fixed
G : 0 fixed

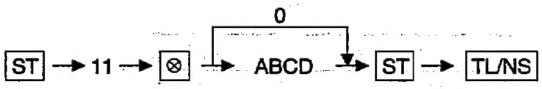
Print format setting



Item	Print format	Selection	Entry
A	Print format	Receipt	1
		Journal	0
B	Contents of receipt	Detail	1
		Total	0
C	Time print	Not print	1
		Print	0
D	Date print (All receipt)	Not print	1
		Print	0
E	Consecutive No. print	Not print	1
		Print	0
F	Feed line at receipt issueing	No feed	1
		Feed	0

MRS = 110000

Others 1 programming



A: Programming of minus DEPT/PLU and number of dept

Programming of minus DEPT/PLU	Number of dept	A
Disable	4	0
	5	1
	8	2
	10	3
Enable	4	4
	5	5
	8	6
	10	7

(10 dept. is only allowed for ER-A170)

B: Fractional treatment

Fractional treatment	B
Round off	0
Raising to unit	1
Disregarding	2

C: PLU & countries

PLU	Countries	C
200	SEC	0
	EUROPE	1
	SECL	2
	JAPAN	3
100	SEC	4
	EUROPE	5
	SECL	6
	JAPAN	7

NOTE: When the setting of COUNTRIES SELECT is once changed, it cannot be changed again until the master resetting is executed.

D: 00 Key selection & TAB (decimal) position

00 key Position	TAB	D
00 key	TAB = 0	0
	TAB = 1	1
	TAB = 2	2
	TAB = 3	3
000 key	TAB = 0	4
	TAB = 1	5
	TAB = 2	6
	TAB = 3	7

MRS = 4012 (ER-A150)
= 4012 (ER-A170)

Others 2 programming

A:

Drawer closing at the operation	Error beep	Key catch sound	A
Not compulsory	Missope, error	No	0
		Yes	1
	All lock error	No	2
		Yes	3
Compulsory	Missope, error	No	4
		Yes	5
	All lock error	No	6
		Yes	7

B:

Void mode	Void mode total print on Z2 report	Void mode total print on Z1 report	B
Not exists	No print	No print	0
		Print	1
	Print	No print	2
		Print	3
Exists	No print	No print	4
		Print	5
	Print	No print	6
		Print	7

C:

Entry that causes the sub-total to be smaller than "0".	No sale after the entry of non add code	Non add code entry.	C
Disable	Disable	Not exists	0
		Exists	1
	Enable	Not exists	2
		Exists	3
Enable	Disable	Not exists	4
		Exists	5
	Enable	Not exists	6
		Exists	7

D:

Time print/display format	Date format	D
12-Hour system	Day/Month/Year	0
	Month/Day/Year	1
	Year/Month/Day	2
24-Hour system	Day/Month/Year	4
	Month/Day/Year	5
	Year/Month/Day	6

MRS = 1474 (ER-A150)
= 1474 (ER-A170)

Others 3 programming

A:

Printing when the ST key is pressed.	Printing the EXCHANGE in PGM report & X/Z report.	Programming of job#11-21 on PGM mode	A
Not print	Not print	Disable	0
		Enable	1
	Print	Disable	2
		Enable	3
Print	Not print	Disable	4
		Enable	5
	Print	Disable	6
		Enable	7

NOTE: When the setting of "PROGRAMMING OF JOB #11-21 ON PGM MODE" is once changed, it cannot be changed again until the master resetting is executed.

B:

Stamp	B
No	0
Yes	4

C:

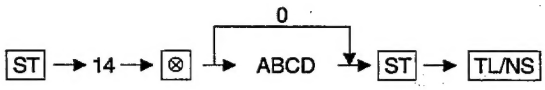
Direct non-tender finalization after tendering	Z1, Z2 counter print on X/Z report	C
Disable	No print	0
	Print	1
Enable	No print	4
	Print	5

D:

Reset GT after Z1 report is printed	GT print on Z report	Zero skipping hourly and dept. & transaction and PLU in X/Z report	D
No	Not print	Disable	0
		Enable	1
	Print	Disable	2
		Enable	3
Yes	Not print	Disable	4
		Enable	5
	Print	Disable	6
		Enable	7

MRS = 1013 (ER-A150)
= 1413 (ER-A170)

Others 4 programming



A, B:

European rounding	A, B
Common destination	00
Norway	54
Switerland, netherland	82

C:

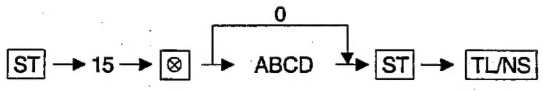
Object of rounding	Lowest digit to be entered when entering an item amount	C
Item & payment	Arbitrary	0
	0 only	1
	0 & 5 only	2
Payment	Arbitrary	4
	0 only	5
	0 & 5 only	6

D:

Difference memory	Lowest to be entered when finalizing	D
Not exist	Arbitrary	0
	0 only	1
	0 & 5 only	2
Exist	Arbitrary	4
	0 only	5
	0 & 5 only	6

MRS = 0000 (ER-A150)
= 0000 (ER-A170)

Others 5 programming



A:

Tax system	A
Auto TAX 1-3	0
Auto VAT 1-3	1
Manual TAX 1-3	2
Manual VAT1 (ST-VAT)	3
Manual VAT 1-3	4
Swiss TAX	5

B:

Tax printing when taxable subtotal is zero	Tax printing when tax is zero	B
No	Yes	0
	No	1
Yes	Yes	4
	No	5

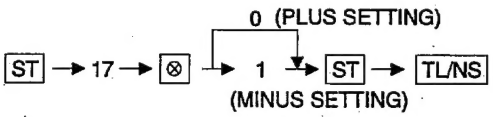
C:

Rounding system	C
Normal	0
Sweden	1
Denmark	2

D: 0 fixed

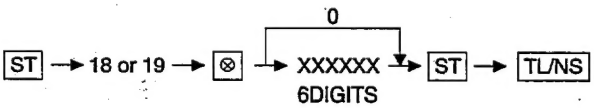
MRS = 1000 (ER-A150)
= 1000 (ER-A170)

GT sign programming



MRS = 0

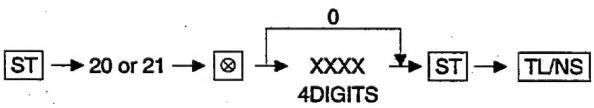
GT programming



18 : GT (Lower 6 digits)
19 : GT (Upper 6 digits)

MRS = 000000

Reset report counter programming



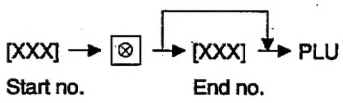
20 : Z1 report counter
21 : Z2 report counter

MRS = 0000

4. PRINTING OF PROGRAM REPORTS

Key entry	Report name
TL	Programmed data1 report
1 TL	Programmed AUTO report
2 TL	Programmed data2 report
PLU ✳1	PLU data report

✳ 1 PLU code range can be specified by entering the start and end numbers according to the following procedure.
When specifying a single time interval, PLU code, the start number has only to be entered.



PGM programming report

```
1234567891011112
10-07.88

01      06          SICS/NORMAL. LIMIT OF ENTRY DIGITS
        001         TAX STATUS
      10.75         +/- SIGN. UNIT PRICE
02      04
        010
 -     3.00
       .
       .
       .
10      06
      16.80
        06          ← LIMIT OF ENTRY DIGITS FOR (-)
 -     1.25-          UNIT PRICE FOR (-)

 -    10.00% 1     +/- SIGN. %RATE
 -    20.00% 2
#00000000           FUNCTION SELECT
#  000000           PRINT FORMAT
           7 CH     LIMIT OF ENTRY DIGITS FOR CHECK
           4 CR     LIMIT OF ENTRY DIGITS FOR CREDIT
           7        LIMIT OF ENTRY DIGITS FOR RA
           7        LIMIT OF ENTRY DIGITS FOR PO
   123.4500  X      CONVERSION RATE

     5.0000%VT1     VAT1 RATE |    5.0000%TX1  |
    10.0000%VT2     VAT2 RATE |   10.0000%TX2  |
    20.0000%VT      VAT3 RATE |   20.0000%TX   |
                          ADD ON TAX SYSTEM
128#1969
11-45 ★
```

PGM programming data 2 report

```
12345678910111 2
10-06.88

11    2502
12    3771
13    3362
14    0000
15    0000
      0012No 1
      0012No 2
  ★123456
   1234.56  GT

128#1971
11-59 ★
```

PROGRAMMING CONTENTS

Z1 COUNTER
Z2 COUNTER

GRAND TOTAL

PGM programming report. (PLU)

```
12345678910111 2
10-07.88

001#1    0
  9999.99
002#2
      .
      .
      .
099#2    1
     5.00
100#2    1
    4.200

128#1971
11-59 ★
```

PLU NO., DEPT NO., PLU/SUB (1/0)
+/- SIGN. UNIT PRICE

PGM programming report. (AUTO)

```
12345678910111 2
10-06.88

01      01
02      00
03      00
04      31
05      16

128#1971
11-59 ★
```

No./STORED KEY

Key code list

Function code	Key name
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	00
11	•
12	CL
13	(X)
14	#/TM/ST
15	TL/NS
16	PLU/SUB
17	Refund
18	Void
19	(–)
20	%1
21	%2
22	RA
23	PO/RCPT
24	CHECK
25	CREDIT
26	EXCHANGE
27	VAT
32	CLK#
33	AUTO
41-48	DEPARTMENT 1-8

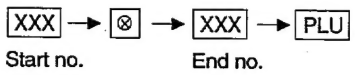
* Function No.28-31 are Not used.

5. OP X/Z, X1/Z1, X2/Z2 REPORTS

In the table below those reports marked with a circle "0" can be printed.

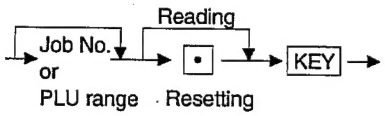
REPORT NAME	MODE								
	KEY ENTRY	OP X/Z		X1/Z1		X2/Z2		F-read	DATA FOR READING	
		X	Z *3	X1	Z1 *3	X2	Z2 *3	X1		
GENERAL	TL			0	0					
PERIDOIC TOTAL	TL					0	0			(ER-A150)
MOTHLY SALES	TL					0	0			(ER-A170)
DEPT	DEPT							0		*2
PLU BY RANGE	PLU			0	0				PLU CODE	*1
INDIVIDUAL CLEAK	CLK#	0	0						CLERK CODE	(ER-A170) *4
ALL CLERK	CLK#			0	0					(ER-A170)
HOURLY (ALL)	ST			0	0					
SALES TOTAL	ST							0		*2
CID	TL							0		*2

* 1 PLU code range can be specified by entering the start and end numbers according to the following procedure.
When specifying a single time interval, PLU code, the start number has only to be entered.



* 2 Reading display only

* 3 To read respective reports, it is necessary to follow the procedure below.



* 4 Clerk code must be entered according to the following procedure.

[X] → [CLERK#]
Clerk code 1-4

SHARP

SHARP CORPORATION
Information Systems Group
Quality & Reliability Control Center
Yamatokoriyama, Nara 639-11, Japan
1993 June Printed in Japan Ⓢ